

SWBAT

differentiate between  
mass, weight, and  
volume

Sep 4-7:31 AM

Welcome!!!

SECA CP Physics  
Wednesday 3 February 2016



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Room C-244

Centering  
(animals)

- Show me SchoolView if you want phone in class...
- Hmwk: Vocab cards, Eureka 1-7

Opening Activity - Quick Write! <sup>YES</sup>  
What is a vector? Is "force" a vector?  
<sup>SOMETHING THAT HAS SIZE & DIRECTION</sup>  
<sub>MAGNITUDE</sub> <sup>MATTERS</sup>

Baby animals: 36-40

Sep 7-7:04 AM

## What we should have solid:

Memorize our ~~5~~<sup>8</sup> vocab cards, units, vector or not, definition, formula

Be able to answer distance vs displacement questions

Be able to make measurements of real-life motion. Know what is likely to make timing things difficult and how to get more reliable timing results

Be able to convert between miles and meters, between hours, minutes, and seconds

Be able to calculate speed = dist/time and velocity = disp/time

Know what all of the symbols in the UAM equations stand for and mean

Be able to turn a UAM word problem into a list of knowns and unknowns

Be able to pick the equation with those 4 things in it

Be able to put the knowns into that equation

(Be able to solve for the unknown)

→ PROJECTILES:  $v_x$  IS CONSTANT;  $v_y$  CHANGES;  $a_y = -9.8 \text{ m/s}^2$  PG 42  
 PG 43 TIME,  $\Delta t$ , CONNECTS  $x$  &  $y$   
 PG 49 VECTORS INTO  $x$  &  $y$ , ADD VECTORS  
 SOH - CAH - TOA

QW every day to review - gather responses to front board.

Dec 4-9:15 AM

Unit	Chapters	Date
Left-Side Items	Page	Right-Side Items
REFLECTION ON NOTES	2	Ed Ed Adam Savage
HOW FAR FROM BRIDGE	4	"FORT STUEBEN"
REFLECTION ON NOTES	6	Hmwk: BASIC UNITS
PR: DISTANCE & DISPLACEMENT	8	Hmwk: FP DISPLACEMENT
DIAGRAM & STEPS	10	TIMING & ERROR
SUMMARY OF TIMING	12	How to BUILD a TABLE
PR: CONVERTING SOLNS	14	Hmwk: FP CONVERSIONS
PR: VELOCITY & SPEED	16	Hmwk: FP SPEED & VELOCITY
SPEED WORD PROBLEMS	18	ALGEBRA FOR PHYSICS
LAB JOURNAL 10/7	20	LAB JOURNAL 10/8
LAB JOURNAL 10/12	24	Hmwk: FP GRAPHS POSITION
26	USE FOR PROJECT	27
OBSERVATIONS OF ORF	28	FP: INTRO TO ACC.
REVIEW FOR TEST	30	BALL ON RAMP
VECTORS, DIRECTION	32	FP: BASIC ACC EXAMPLE
PRACTICE UAM	34	FP: INTRO TO UAM
FALLING OBJECTS PACKET	36	FP: INTRO TO FREEFALL
MY FREE FALL WORD PROBLEM	38	3-ACT FALLING GLOWSTICK
Toy popper experiment	40	Free fall class solutions
Launched vs. Dropped	42	FP: INTRO TO PROJECTILE MOTION
PROJECTILE SIMULATOR	44	FP: PROJ. MOTION PROBLEM
PROJ. L PRACTICE PROB.	46	PROJECTILES PRACTICE
OUR VECTOR PRACTICE	48	FP - VECTOR COMPONENTS
VECTOR PACKET	50	NOTES ON ADDING VECTORS
MEASURE LAUNCHER	52	NOTES ON FINDING $v_i$ & $\theta$
OBSERVATIONS OF OBJECTS	54	RULES OF PHYSICS NOTES
		CONFUSING QUANTITIES

Sep 5-9:09 AM

Pg 55-57 - Rules of Physics notes

Hmwk - Due Fri 1/29

Youtube: Eureka!  
Episodes - Physics

Eureka 1 - Inertia

Eureka 2 - Mass

Eureka 3 - Speed

Eureka 4 - Acceleration 1

Eureka 5 - Acceleration 2

FORCE

SENTENCE  
& LINK  
IN  
PENCIL

Pg 56-57

What vocab cards???

Eureka 6 - Gravity

Eureka 7 - Weight vs Mass

Jan 26-8:23 AM

## VOCABULARY CARDS:

Front:

- Word (large, spelled correctly)
- Image
- Link word \*\*\*

\*\*\* Wait until you understand the term before deciding on a link word and sentence

Back:

- Definition in words *you understand*
- Units - Vector or not?
- Sentence *showing* word's meaning \*\*\*

FRONT:

INERTIA  
< IN-UR-SHA >  
"LAZY"



BACK:

DEFN: THE NAME FOR OBJECTS  
TENDING TO RESIST CHANGES  
TO THEIR MOTION (STILLNESS)

SENTENCE:

UNITS: (SEE "MASS")

VECTOR? NO

Oct 20-9:26 AM

## PG 59 CONFUSING QUANTITIES

MASS IS A MEASURE OF INERTIA HOW HARD IT IS TO PUSH OR PULL  
 ↳ KILOGRAMS (kg)

WEIGHT IS A FORCE DUE TO GRAVITY  
 ↳ NEWTONS (N)  
 (also pounds)  $W = m \cdot g$   
ON EARTH

VOLUME HOW MUCH SPACE DOES SOMETHING TAKE UP.  
 ↳ CUBIC METERS ( $m^3$ )  
 ↳ LITER (L)

Sep 27-3:00 PM

How about some practice...

1. If I take this metal chunk to the moon  
 Will it change its ~~mass~~, weight, ~~volume~~?

GRAVITY CHANGED

2. If I crush an empty soda pop can  
 Will it change its ~~mass~~, ~~weight~~, volume?

SAME CAN EXCEPT HOW MUCH SPACE

3. If I flatten out a blob of Play Doh  
 Will it change its ~~mass~~, ~~weight~~, ~~volume~~?

JUST DIFFERENT SHAPE

4. Which has more volume:  
 a pound of crumpled paper or a pound of metal?

TAKES UP SPACE

5. Which has more weight:  
 a pound of crumpled paper or a pound of metal?

SAME!

6. Which has more mass:  
 a pound of crumpled paper or a pound of metal?  
 SAME! ( $\frac{1}{2}$  kg)

Sep 21-2:13 PM